

In the June 11, 2003 Office Action, the Examiner observed that "The specification of the present invention is missing the 'Brief Summary of the Invention' heading. Appropriate correction is required."

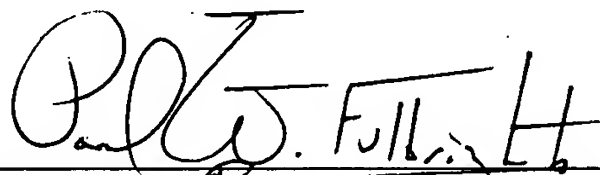
The amendment proposes a *Brief Summary of the Invention*. The *Brief Summary of the Invention* is expressly and solely based upon the content of the October 29, 2003 non-provisional application as originally filed. As such, it contains no new matter. An two-page appendix containing the "Brief Summary of the Invention" on separate pages is attached for the Examiner's convenience following page 4 of this paper.

The Examiner rejected claim 7, because it is an omnibus type claim. The *Amendment* cancels this claim.

A *Petition for Extension of Time Under 37 CFR 1.136(a) FY 2005* and associated check accompanies this *Amendment*.

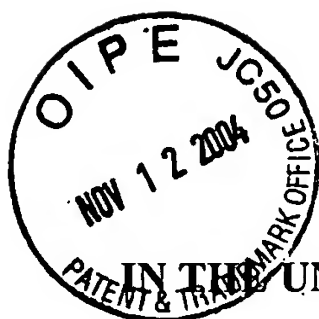
This *Amendment* is being submitted in a *bona fide* attempt to advance the examination of the application. Applicant respectfully requests that a timely *Notice of Allowance* be issued in this case.

Respectfully submitted,



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Dated: November 12, 2004 (the business day after Veteran's Day).



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/697,671
Applicant: John H. Harrison and J. Howard Harrison
Filed: October 29, 2003
Title: A Navigation Control System
Art Unit: 3663
Examiner: To, Tuan C

Application No. 10/697,671
Amendment dated November 12, 2004
Prepared in reply to Office Action of June 11, 1004

BRIEF SUMMARY OF THE INVENTION

A real-time path-directed controller for navigating an object (such as an agricultural vehicle plowing a field) along a desired path is disclosed.

The controller comprises a position sensor which receives signals, such as global positioning system (i.e., "GPS") signals, which identify its position. In conceptual terms, these signals of position are compared frequently by the controller to the desired path of the object (e.g., the vehicle) so that the controller can generate control signals which direct / navigate the object along its desired path.

The method by which the controller accomplishes its objective is disclosed in detail herein. In brief, the position sensor contributes to the production of a conditioned object position signal to a controller summer. The controller also comprises a heading conditioning module which contributes to the production of a conditioned heading signal to the controller summer and a control apparatus sensor which contributes to the production of a conditioned control apparatus signal to the controller summer. Finally, the controller may optionally comprise a control apparatus null position conditioning module which contributes to the production of a conditioned null position signal to the controller summer.

The controller summer sums the signals to produce a controller summer signal to a controller summer conditioning module so as to produce a control apparatus control signal to a control apparatus controller. The control apparatus controller directs the control apparatus and thereby directs the object by feedback control along the desired path.